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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/693,499	Ono et al
Examiner	**Group Art Unit**
Curtis E. Sherrer	1761

☒ Responsive to communication(s) filed on *Jan 15, 1999*.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1, 2, and 7-28* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1, 2, and 7-28* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Part III DETAILED ACTION

Claim Objections

1. Claim 2 is objected to because of the following informalities: the number "2" should be removed from line 9 of the claim (before the word "lower"). Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. Claims 1, 2, 7-12, and 19-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The scope of the phrase "essential oil components," as found in claims 1-2, is unknown. See page 15, lines 32-35 for possible phrasing that would define said phrase's scope.

4. Claims 7-12 and 19-23 are indefinite because they depend from canceled claims.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Haeffner et al (U.S. Pat. No. 5,011,594).

7. Haeffner et al teach the use of supercritical solvents, such as carbon dioxide, to fractionate hops. Example 3 teaches the treatment of hops with supercritical carbon dioxide at pressures of 300, 210, 120, and 70 bar to produce several fractions of hop materials. The examples states that the soft resins were removed at 120 and 70 bar. While Haeffner et al do not teach that the resulting fractions contain the claimed ratio of essential oil components to alpha acids, it is considered inherent that this claim limitation is met because the process of the cited patent is the same as that claimed and therefore the resulting products are the same.

8. It is noted that the Office does not have the facilities for examining and comparing Applicant's process with the process of the prior art in order to establish that the product of the prior art does not possess the same material structural and functional characteristics as that of the product of the claimed process. In the absence of evidence to the contrary, the burden is upon the applicant to prove that the claimed are functionally different than those taught by the prior art and to establish patentable differences. See *In re Best*, 562 F.2d 1252, 195 U.S.P.Q. 430 (CCPA 1977); *Ex parte Gray*, 10 U.S.P.Q.2d 1922, 1923 (BPAI).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haeffner et al.

11. Haeffner et al teach that cited above but do not specifically teach the fractionation of the hops at the various claimed pressures. Because the prior art teaches that the modification of the extraction pressures will determine the composition of the resulting product it would have been obvious to those of ordinary skill in the art to optimize the extraction pressure, which is a result effective variable, so as to produce an extract that suits their desired purposes. Discovery of optimum value of result effective variable in known process is ordinarily within skill of art." *In re Boesch*, 205 U.S.P.Q. 215, 215 (CCPA 1980).

12. Claims 1, 2 and 7-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over ANH (B.E. Pat. No. 1897012) in view of Krasd Food (S.U. Pat. No. 1601112).

13. ANH teaches a process for the use of spent hops to produce a wort and subsequent beer. Part of the process includes the use of an organic solvent, whereby a pure resinous extract, comprised of "approximately 90 to 95% total resin, the other constitutive elements

being aromatic oils, waxes, and water" is produced. Also produced are spent hops. ANH adds back to the spent hops the initial extract to form granular particulates. "Obtaining granular particles from extract can result from spray drying" (page 4, bottom).

14. In Example 2, 100 kg of extract was added to 10 to 50 kg of spent hops powder. "The proportion of the spent hops powder is determined as a function of the desired standardization." The hops powder was produced by drying the spent hops to a "maximum of 10%, for example, 5%" and then very finely crushing until the particles are between 0.05 and 1.0 mm (page 2). The use of the invention allows for "the use of raw materials which can be automatically measure out" where the material is "uniform, [] absolutely homogenous, [will] settle even after a rather long storage time, and [] can flow or else can be measured out by means of pumps." (Pages 2 to 3). ANH does not teach that the spent hops are obtained from a by CO2 extraction of hops.

15. Krasd Food discloses using the waste from a CO2 extraction process along with the CO2 extract in the production of a wort. It would also be obvious to one of ordinary skill in the art to use a CO2 extract, as done by Krasd Food, in the process of ANH as CO2 extracts are well known and used. It is further noted, that it is well known that beer consumers prefer that there be no unnatural ingredients in their beer, as evidenced by the infamous German Beer Purity Law, that allows only for the use of yeast, water, hops and barley, and therefore,

there is ample motivation to use carbon dioxide as the solvent for producing standardized hop products.

16. It is considered that changing the addition of the extract at any step of the wort production process would have obvious to one of ordinary skill in the art because those in the brewing art can pick and choose how much of each flavor ingredient they want to be present in the final product. Further, the selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results. *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930).

17. As set forth in the rejection based on Haeffner et al, it is notoriously well known to modify the extraction pressures so as to create various extracts of different makeup. The extraction pressure is a result effective variable and theses are routinely modified and optimized by those in the art.

Conclusion

18. No claim is

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis Sherrer whose telephone number is (703) 308-3847. The examiner can normally be reached on Tuesday through Friday from 6:30 to 4:30.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Lacey, can be reached on (703)-308-3535. The fax phone number for this Group is (703)-305-3602.

21. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

Curtis E. Sherrer

March 26, 1999